1. Project Name: Agat SBH

2. Date of Inspection: July 20, 2007

3. Inspection Personnel:

	Name	Agency/Office	Telephone No.
a.	Dan Meyers	COE	438-8875
b.	Justin Pummell	COE	438-7038

4. Discussion:

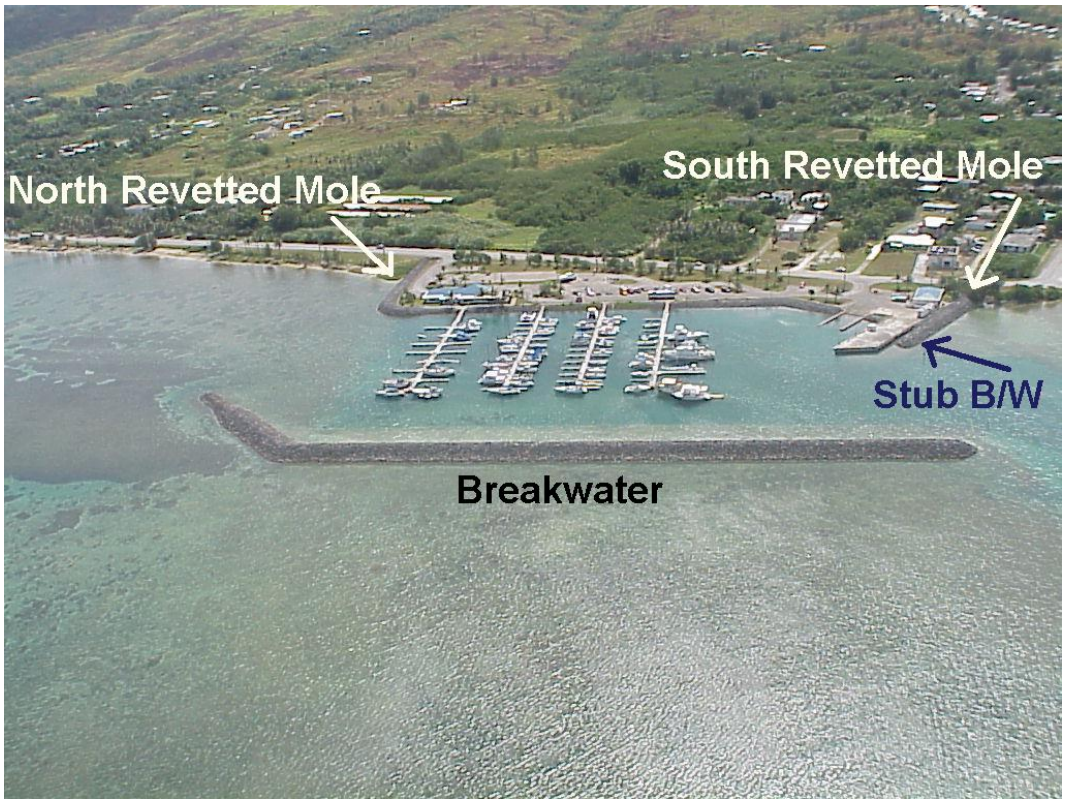
The overall condition of the project is good, however several unauthorized chains could jeopardize the breakwater's structural integrity during a major storm.

The Main Breakwater, 985 LF, has encroachments (chains) on the crest (CL) and sideslopes of the structure both oceanside (OS) and the harborside (HS). Some of the chains have been "disconnected" however are still laying in-place and could be used at a later date. These chains cross the Turing Basin and Access Channel.

The North Revetted Mole, 300 LF, Primary deficiencies are toe armor stone movement and vegetation.

The South Revetted Mole, 180 LF, was modified in the early 1990s. DPW or Ports may have done this modification. There are no updated AS-BUILT drawings for this work. The structure has well-established vegetation at the root section as the primary deficiency.

The Stub Breakwater, 60 LF has no minor deficiencies.



STRUCTURES	STATION
Main Breakwater	0+00 to 9+85
North Revetted Mole	0+00 to 3+00
South Revetted Mole	0+00 to 1+80
Stub Breakwater	0+00 to 0+60

Primary deficiencies are as follows:

MAIN BREAKWATER - 985 LF:

a. Sta. 0-35, Crest/Sideslope, Void, the missing armor stones appear to be resting on the OS @ 15 deg. of the structure. No Change (NC) this year

b. Sta. 0-30, Crest/Sideslope, Void, the missing armor stones appear to be resting on the OS of the structure. (FY03 photo, NC)

c. Sta. 0-35, 2 ea. armor stones (AS) are resting adjacent the structure. These AS may be from the above identified voids.

d. Sta. 0+25, Overview.

e. Sta. 0+82, OS, Remove chain.

f. Sta. 1+00, HS, Un-authorized Anchor chain crossing channel.

g. Sta. 1+62, OS, Monitor slight settling on the sideslope.

h. Sta. 1+62, CL, 1’ x 3’ void at crest.

i. Sta. 2+00, Overview (reference photo).

j. Sta. 2+98, Overview w/reference point, slight settling at Sta. 3+00 (no change this year).

k. Sta. 3+59, CL, Monitor minor settling.

l. Sta. 3+90, HS, Remove chains, no longer crosses chnl appears to be broken.

m. Sta. 4+04, OS, Remove chains.

n. Sta. 4+31, Small void.

o. Sta. 4+34, CL, Void (no change this year).

p. Sta. 4+34, HS, Remove chain in access channel (no change this year).

q. Sta. 4+44, CL, Monitor small void, no obvious settling.

r. Sta. 4+55, CL, 2′ x 2′ x 10′ void (new this year).

s. Sta. 4+95, HS, Remove chains, hard to see in silt.

t. Sta. 5+00, OS, slight settling at crest.

u. Sta. 5+71, HS of CL, Monitor slight settling.

v. Sta. 6+00, HS, Chain w/metal spike.

w. Sta. 6+92, Overview (reference photo).

x. Sta. 8+75, HS, Remove chain in access channel.

y. Sta. 8+75, OS, Remove chain.

z. Sta. 8+83, small void on centerline of crest.

aa. Sta. 8+95, CL, Monitor void area, no change this year.

bb. Sta.9+05, CL, Monitor void.

cc. Sta. 9+15, Overview.

dd. Sta. 9+16, Rope and chain.

ee. Sta. 8+99, CL, Monitor void area. No Change this year.

ff. Sta. 9+25, HS, Remove chain and anchor.

hh. Sta. 9+85, Head, North End of Project

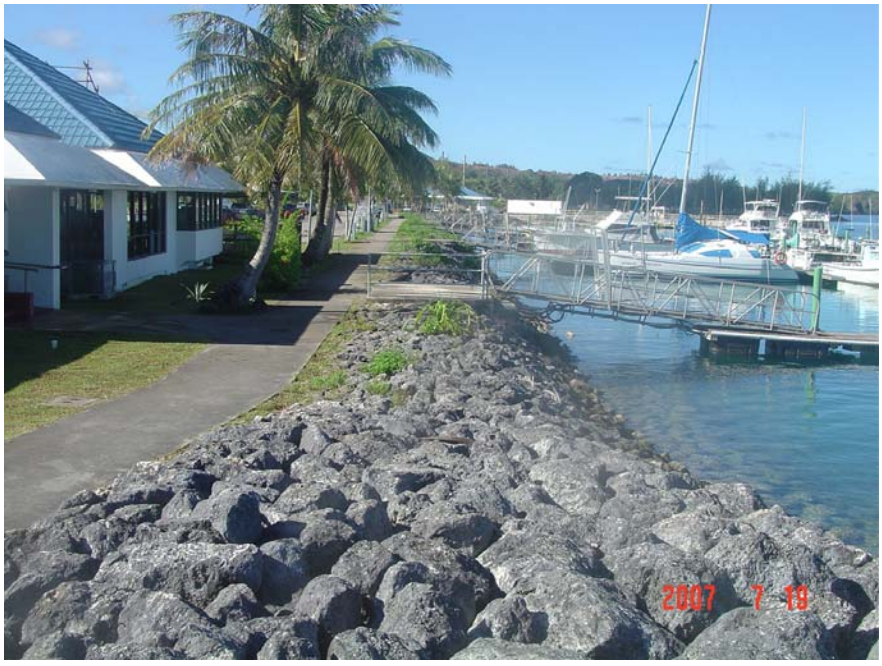
NORTH REVETTED MOLE - 300 LF:

a. Sta. 0+10, CL, Unauthorized encroachment (sign) has been removed.

b. Sta. O+00, Note: 0+66, OS, Tree has been cut, still existing vegetation on crest.

c. Sta. 1+20, Overview.

d. Sta. 2+68, OS, Monitor the toe of the structure and dislocated armor stones at this area. This area at the intersection of the berthing area dredge cut and the reef flat has “scoured” a small channel. No Change this year.



e. Sta. 3+00, Overview (reference photo).

SOUTH REVETTED MOLE - 180 LF:

a. Sta. 0+00 to Sta. 0+60, HS, Remove vegetation worse than last year.

b. Sta. 0+33 to Sta. 1+70, HS, Structure modified.

c. Sta. 1+70, OS, Overview (reference photo).

STUB BREAKWATER - 50 LF:

a. Sta. 0+00, Overview (reference photo).

b. Sta. 0+34, CL, Monitor slight settling.

d. Sta. 0+60, Head, Overview .

5. Findings/Conclusions:

Vegetation removal from the structures should be accomplished before conditions worsen. The chains that are installed by persons unknown, on the main breakwater needs to be removed. These are used for temporary mooring during storms and have not been designed into the project. In FY03 this issue was discussed in a meeting with Mr. Simion DeLosSantos and Deputy Director, Mr. Paul M. Shintaku of Guam Port Authority. The Corps' concerns were re-iterated regarding the encroachment into the access channel and turning basin and its associated potential hazards. Per my discussions with Mr. Simmion DeLosSantos, GPA does not have the funds to remove the chains, however would be willing to issue a notice to boaters informing them the COE will be removing the chains prior to any action.

Signed: _____
Dan Meyers, CEPOH-EC-T

Signed: _____
James Pennaz, P.E. Ch, CEPOH-EC-T

Additional Photos
Project Index Map

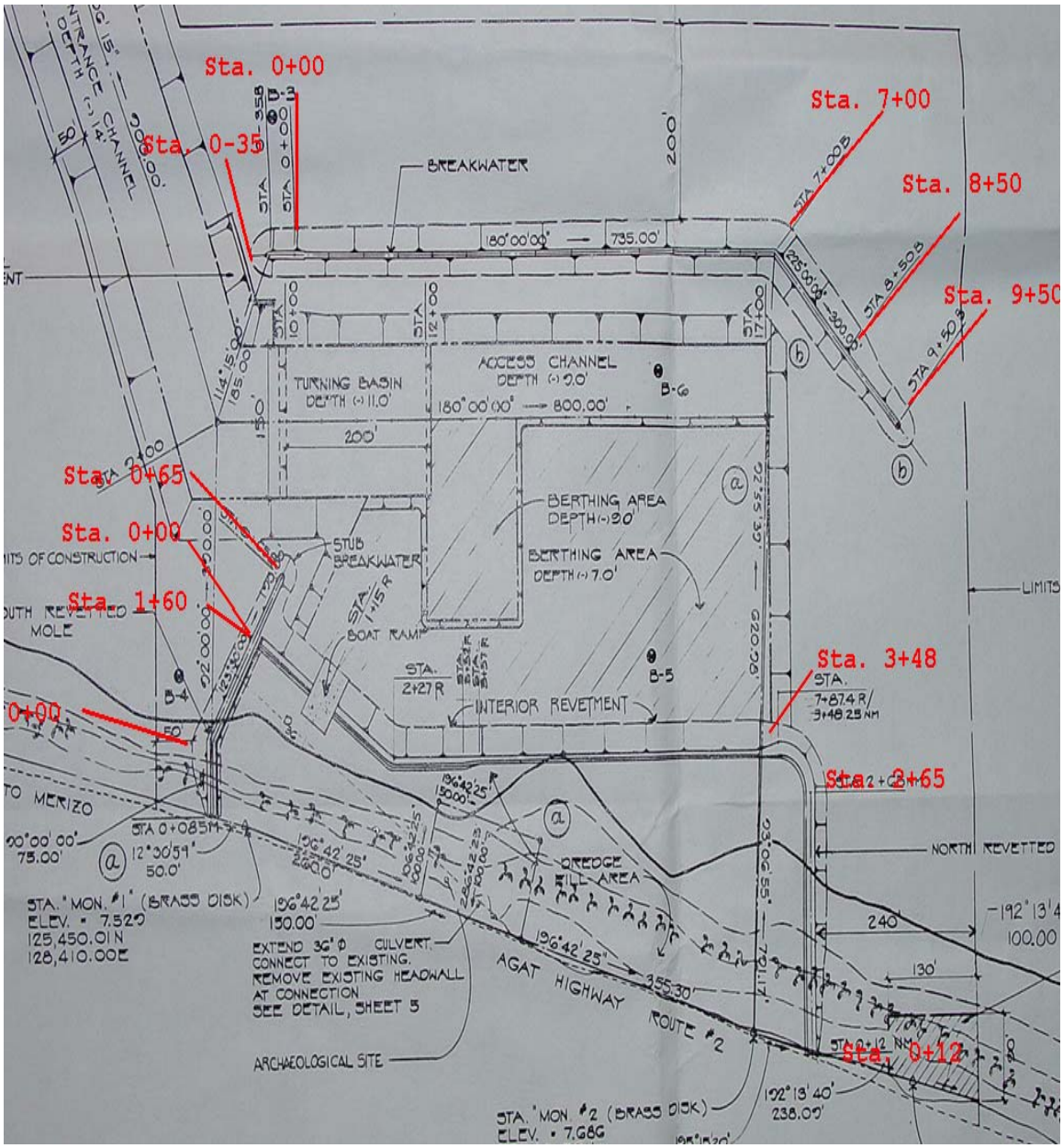
Vertical Datum:

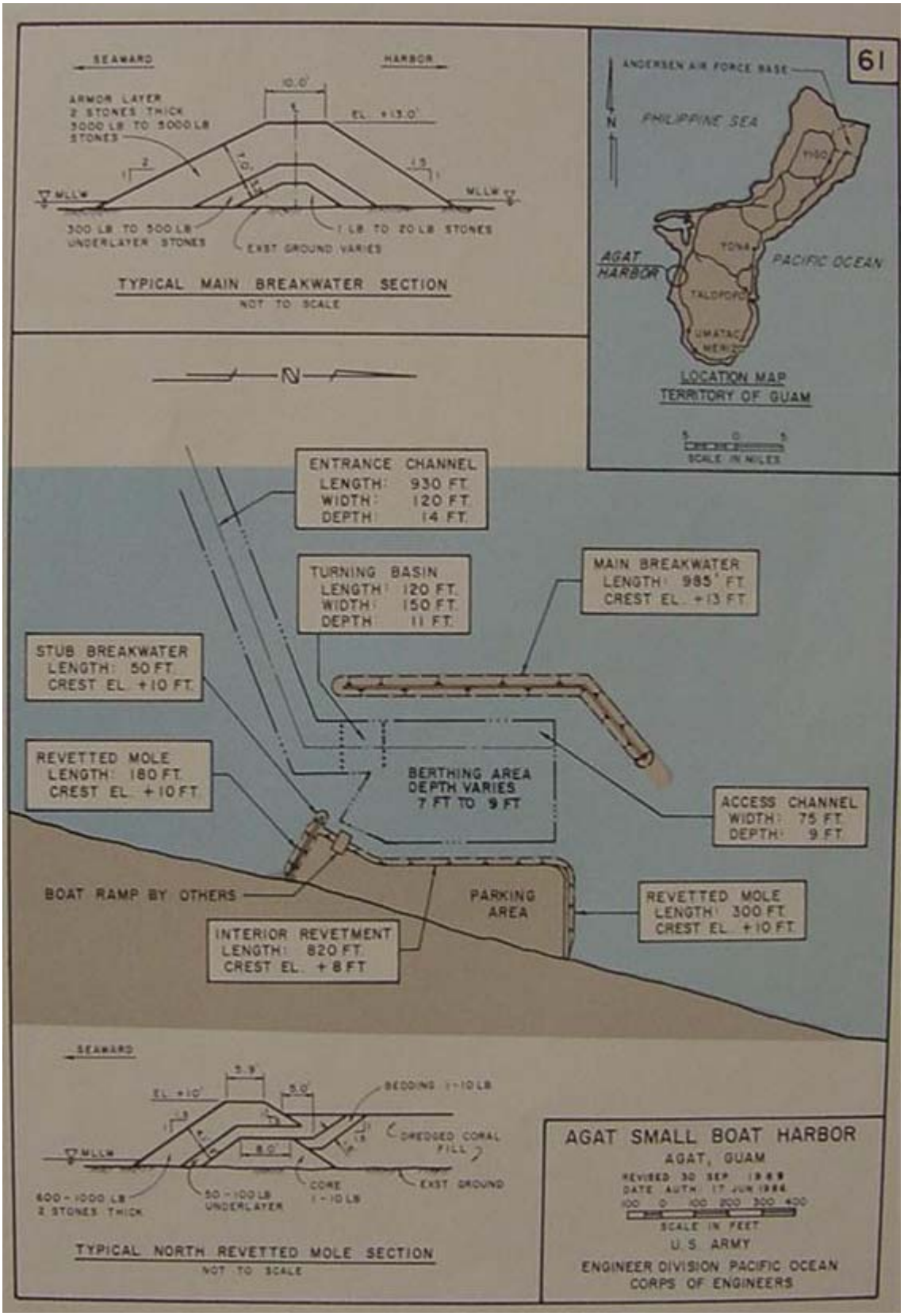
New Benchmark “HAFA”, installed and will be maintained in the NGS Database. Contact the Vertical Datum Coordinator Justin Pummell, CEPOH-EC @ 808-438-7038 for more info.

NON FEDERAL ITEMS OF INTEREST:

Fuel Dock is settling and can not be used.

The Federally Constructed-Locally Owned Boat Ramp Dock has major damages as the piles have failed.


Sta. 0+00
Sta. 0-35
Sta. 7+00
Sta. 8+50
Sta. 9+50
Sta. 0+65
Sta. 0+00
Sta. 1+60
Sta. 3+48
Sta. 2+65
Sta. 0+12
BREAKWATER
TURNING BASIN
DEPTH (-) 11.0'
ACCESS CHANNEL
DEPTH (-) 9.0'
BERTHING AREA
DEPTH (-) 9.0'
BERTHING AREA
DEPTH (-) 7.0'
STUB BREAKWATER
BOAT RAMP
INTERIOR REVETMENT
DREDGE FILL AREA
NORTH REVETTED
AGAT HIGHWAY
ROUTE #2
ARCHAEOLOGICAL SITE
EXTEND 36" Ø CULVERT. CONNECT TO EXISTING. REMOVE EXISTING HEADWALL AT CONNECTION SEE DETAIL, SHEET 5
STA. "MON. #1" (BRASS DISK)
ELEV. = 7.520
125,450.01 N
128,410.00 E
STA. "MON. #2 (BRASS DISK)
ELEV. = 7.686
B-3
B-4
B-5
B-6
735.00'
800.00'
920.00'
355.30'
238.00'
100.00
150.00'
50.0'
75.00'


61
SEAWARD
HARBOR
ARMOR LAYER
2 STONES THICK
5000 LB TO 8000 LB
STONES
EL +13.0'
MLLW
300 LB TO 500 LB
UNDERLAYER STONES
1 LB TO 20 LB STONES
EXST GROUND VARIES
TYPICAL MAIN BREAKWATER SECTION
NOT TO SCALE
ANDERSEN AIR FORCE BASE
N
PHILIPPINE SEA
AGAT
HARBOR
PACIFIC OCEAN
LOCATION MAP
TERRITORY OF GUAM
SCALE IN MILES
ENTRANCE CHANNEL
LENGTH: 930 FT.
WIDTH: 120 FT.
DEPTH: 14 FT.
TURNING BASIN
LENGTH: 120 FT.
WIDTH: 150 FT.
DEPTH: 11 FT.
MAIN BREAKWATER
LENGTH: 985' FT.
CREST EL. +13 FT.
STUB BREAKWATER
LENGTH: 50 FT.
CREST EL. +10 FT.
REVETTED MOLE
LENGTH: 180 FT.
CREST EL. +10 FT.
BERTHING AREA
DEPTH VARIES
7 FT TO 9 FT
ACCESS CHANNEL
WIDTH: 75 FT.
DEPTH: 9 FT.
BOAT RAMP BY OTHERS
PARKING
AREA
REVETTED MOLE
LENGTH: 300 FT.
CREST EL. +10 FT.
INTERIOR REVETMENT
LENGTH: 820 FT.
CREST EL. +8 FT
SEAWARD
EL +10'
BEDDING 1-10 LB
DREDGED CORAL
FILL
MLLW
EXST GROUND
600 - 1000 LB
2 STONES THICK
50 - 100 LB
UNDERLAYER
CORE
1 - 10 LB
TYPICAL NORTH REVETTED MOLE SECTION
NOT TO SCALE
AGAT SMALL BOAT HARBOR
AGAT, GUAM
SCALE IN FEET
U.S. ARMY
ENGINEER DIVISION PACIFIC OCEAN
CORPS OF ENGINEERS

AGAT SMALL BOAT HARBOR, GUAM

CONDITION OF IMPROVEMENT 30 SEPTEMBER 1991

PREVIOUS PROJECTS: None.

EXISTING PROJECT: Authorized for construction on 17 June 1986 under Section 107 of the River and Harbor Act of 1960, as amended. Provides for an entrance channel 930 feet long, 120 feet wide, 14 feet deep; a turning basin 120 feet long, 150 feet wide, 11 feet deep; a main access channel 500 feet long, 75 feet wide, 9 feet deep; two breakwaters 985 feet long and 50 feet long; and two revetted moles 180 feet long and 300 feet long. The protected basin will provide berthing areas for 150 boats.

PROGRESS OF WORK

Completed and Under Maintenance: A construction contract awarded in October 1986 was completed in February 1989 for $3,388,687.

Work Remaining: None.

COST OF CONSTRUCTION:

Completed Works:	New Work
United States Funds	
Corps of Engineers	$1,714,486
Coast Guard	1,994
Contributed Funds	
Required	1,239,363
Other	992,804
Total Costs	$3,948,647